

(12) UK Patent Application (19) GB (11) 2 379 687 (13) A

(43) Date of Printing by UK Office 19.03.2003

(21) Application No 0225345.8

(22) Date of Filing 13.06.2001

(30) Priority Data

(31) 9596612

(32) 19.06.2000

(33) US

(86) International Application Data

PCT/US2001/018999 En 13.06.2001

(87) International Publication Data

WO2001/098624 En 27.12.2001

(71) Applicant(s)

Schlumberger Technology Corporation
(Incorporated in USA - Texas)
Schlumberger Reservoir Completions,
14910 Airline Road, Rosharon,
Texas 77583-1590,
United States of America

(72) and (74) continued overleaf

(51) INT CL⁷

E21B 29/02 43/117 , F24B 1/24

(52) UK CL (Edition V)

E1F FLT

F3A AC1A3

(56) Documents Cited by ISA

US 6021714 A

US 5859383 A

US 4649822 A

US 4191265 A

US 4061511 A

Lewis, Sr. Richard J., Hawley's Condensed Chemical
Dictionary, Van Nostrand Reinhold Company, 12th
Edition, page 791

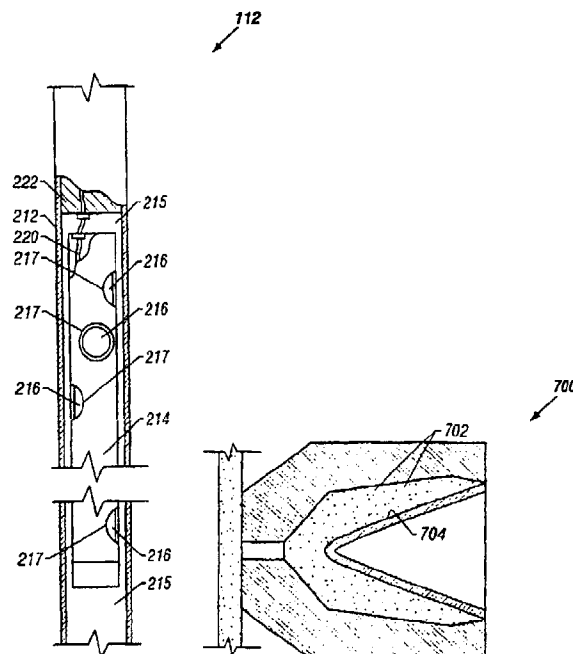
(58) Field of Search by ISA

Other: U.S. : 89/1,15; 166/55, 63297; 175/4.5, 4.57,
4.59, 4.6; 102/307, 312, 314, 318476; 149/108.8, 109.4;
Online: EAST

(54) Abstract Title

Method and apparatus of protecting explosives

(57) A method and apparatus to protect explosive components (704 or 804) used in various tools, such as tools for use in wellbores, includes a component (704 or 804) with an adsorptive material (702 or 802). Example tools include perforating gun strings (110) that include shaped charges (700 or 800), detonating cords (220), and booster explosives (114). Other tools may include surface tools containing explosive components. In these tools, a build up of corrosive gases or liquids may occur, which may cause damage to the explosive components (704 or 804). As a result, the structural integrity or reliability and thermal stability may be weakened or reduced. To reduce the amount of build up of corrosive gases or liquids, an adsorptive material (702 or 802) is placed inside tools in the proximity of explosive components (704 or 804).



GB 2 379 687 A

(72) Inventor(s)

Manish Kothari

Wenbo Yang

Alfredo Fayard

Jack F Lands Jr

Anthony Frank Veneruso

Lawrence A Behrmann

Claude D Jones

(74) Agent and/or Address for Service

Sensa

**Gamma House, Chilworth Science Park,
SOUTHAMPTON, Hampshire, SO16 7NS,
United Kingdom**